

Serial No. 10/012,217

Amendments to the claims:

1. (original) An optical interface assembly for interfacing a fiber optical connector to an optoelectronic device, said assembly comprising a retainer having a well for receiving a wedge and a sloping side wall that abuts a fiber stub array when the fiber stub array comes in contact with the wedge.
2. (original) The interface assembly of claim 1, further comprising a two part plate assembly with provision for accepting an optoelectronic device, said two part plate assembly is mechanically coupled to said retainer by at least one of welding and applying epoxy.
3. (original) The interface assembly of claim 1, further comprising a two part plate assembly and a connector latch, said two part plate assembly and said connector latch mechanically coupled to either side of the retainer.
4. (original) The interface assembly of claim 1, wherein the retainer includes a notch along a base, and wherein said notch is configured to fix the fiber stub array in the axial direction.
5. (original) The interface assembly of claim 1, wherein the fiber stub array includes a plurality of passageways and at least one guide bore, said passageways and said guide bore are axially aligned to IEC 1754-5 standard.
6. (original) The interface assembly of claim 1, wherein the fiber stub array includes a well for relieving excess epoxy, a sloping front face for mating with the conventional connector, and a sloping rear face of wire bonding.
7. (original) The interface assembly of claim 1, further including register means and a latch means for locating a conventional connector latch with respect to the retainer and for coupling the latch and the retainer.

Serial No. 10/012,217

8. (original) The interface assembly of claim 1, wherein the fiber stub array is made of a first member and a second member and wherein the first and second members have keying features for alignment.
9. (original) The interface assembly of claim 1, wherein the retainer is welded to a VCSEL plate assembly.
10. (original) The interface assembly of claim 1, further comprising a plurality of V-grooves axially disposed within the fiber stub array.
11. (original) The interface assembly of claim 1, further comprising a VCSEL plate assembly having a VCSEL array and a photodiode mounted thereon, wherein the VCSEL plate assembly is mechanically coupled to the retainer.
12. (original) An optical interface connector for connecting a ferrule to an optoelectronic device comprising a base unit in mechanically engagement with a connector latch, said connector latch having detents and keying features for coupling the connector latch to the base unit, said base unit comprises at least one guide pin passing through a series of components, said components including an optoelectronic plate and a fiber stub array; and wherein said optoelectronic plate includes at least one alignment hole in a loose fit engagement with the at least one guide pin to thereby permit said optoelectronic plate to move in at least one of x,y and theta direction with respect to said base unit.
13. (original) The interface connector of claim 12, wherein the optoelectronic plate comprises a first plate and a second ceramic substrate, and wherein the first plate is coupled to the base unit by welding.
14. (original) The interface connector of claim 12, further including a VCSEL array and a photodiode in passive alignment with the optoelectronic plate.

Serial No. 10/012,217

15. (original) The interface connector of claim 12, wherein the fiber stub array is made of a first member and a second member and wherein the first and second members have keying features for alignment.
16. (original) The interface connector of claim 12, wherein the optoelectronic plate includes a ledge for registration between a first plate portion and a second plate portion.
17. (original) The interface connector claim 12, wherein the optoelectronic plate is welded to the base unit after the optoelectronic plate has been actively aligned with a conventional connector.
18. (original) The interface connector of claim 12, wherein the connector latch is configured to accept a conventional ferrule and wherein the ferrule is configured to push the fiber stub array from a first position to a second position towards the base unit as the ferrule is received by the connector latch.
19. (original) The interface connector of claim 12, further comprising a second guide pin for registering the components along approximately a single plane.
20. (original) The interface connector of claim 12, further comprising a plurality of V-grooves axially disposed within the fiber stub array.
21. (canceled)
22. (canceled)
23. (canceled)
24. (canceled)
25. (canceled)
26. (canceled)
27. (canceled)

Serial No. 10/012,217

28. (canceled)
29. (canceled)
30. (canceled)
31. (canceled)
32. (canceled)
33. (canceled)
34. (original) An optical interface unit for coupling an optoelectronic device to a fiber connector, said interface unit comprising a cradle, a fiber stub array, a VCSEL plate assembly, and a connector latch; said cradle is configured to encase said fiber stub array and to fix an alignment gap between said fiber stub array and said VCSEL plate assembly; said VCSEL plate is configured to accept a VCSEL array and to permit signals from said VCSEL array to pass to a photodiode, which is mounted sub-adjacent to the VCSEL array; said connector latch is configured to couple to said cradle by at least one of epoxy detents, and restriction from a screw; and wherein said cradle is attached to said VCSEL plate assembly by at least one of welding and applying epoxy.
35. (original) The interface unit of claim 34, including a wedge and a wedge hole for limiting the fiber stub array from moving laterally.
36. (original) The interface unit of claim 34, wherein the cradle includes a cavity having four sides and wherein one of the sides has a slope.
37. (original) The interface unit of claim 34, wherein the cradle includes a notch and a guide for limiting the fiber stub array from moving axially and laterally with respect to the cradle.

Serial No. 10/012,217

38. (original) The interface unit of claim 34, further comprising a pair of guide pins fixedly attached to a pair of guide holes on the fiber stub array, said pair of guide pins is configured to guide said conventional connector and to align a plurality of fibers within said conventional connector to a plurality of fibers in said fiber stub array to about less than +/- 1 micron.

39. (original) The interface unit of claim 34, wherein said fiber stub array includes an upper portion and a lower portion and further includes a plurality of V-grooves disposed axially on the lower portion.

40. (original) An optical interface device comprising:
a plastic housing having a plurality of axial passageways for receiving a plurality of optical fibers, each of said plurality of passageways extending longitudinally from a first optical surface to a second optical surface, and alignment guide holes extending longitudinally from the first optical surface to the second optical surface wherein said axial passageways are precisely aligned with said alignment guide holes;
a cradle having an interior cavity and at least one protrusion for keying the plastic housing in at least one direction; and
a connector latch in mechanical communication with the cradle by at least one of epoxy, detents, and pressure from a screw, and wherein the connector latch has an opening for receiving a conventional fiber optic connector.

41. (original) The optical interface device of claim 40, wherein the plastic housing comprises an upper portion and a lower portion and wherein the plurality of passageways are disposed along the lower portion.

- 42. (canceled)
- 43. (canceled)
- 44. (canceled)
- 45. (canceled)

Serial No. 10/012,217

46. (canceled)
47. (canceled)
48. (canceled)
49. (canceled)
50. (canceled)
51. (canceled)
52. (canceled)
53. (canceled)
54. (canceled)
55. (canceled)
56. (canceled)
57. (canceled)
58. (canceled)
59. (canceled)
60. (canceled)